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Most of the dwelling-houses within the Settlement limits are well ventilated and lighted and are satisfactory from a public health point of view. Endeavours are being made to effect an improvement in architectural standards.

There are still a few buildings in Maala and Sheikh Othman where the old type of house exists, but improvement grows every year by demolition and reconstruction, and the majority of the population is comfortably housed.

Water Supply

The water supply of Aden is obtained from six bore-wells situated near the village of Sheikh Othman. The supply for the civil population is pumped into two tanks each of 100,000 gallons capacity, and from these tanks the supply gravitates through a 15-in. main to a storage reservoir of 400,000 gallons capacity at the Isthmus.

The total amount of water raised from these bore holes during 1938 was 236,178,000 gallons. This represents an average daily supply of 647,000 gallons, and taking the population as 47,000 an average of 14 gallons per head per day for all purposes.

The following table gives details of the water used in Aden during the years 1936, 1937 and 1938.

Details of water.	*1936.*	*1937.*	*1938.*
Total water raised at bore-holes.	204,887,000	207,368,000	236,178,000
Total water delivered to Fortress area.	118,429,000	121,980,000	133,525,000
Total water delivered to Military.	25,520,000*	23,671,000	27,564,000
Total water sold for Shipping purposes.	18,489,000	20,704,000	21,273,000
Total water used for gardens	76,992,000	84,385,000	98,087,000
Water unaccounted, for per cent. loss.	32·9 per cent.	23·0 per cent.	21·19 per cent.

* This high figure was due to the extra number of Military temporarily drafted to Aden in 1936.

The increase in the consumption of water for all purposes is due chiefly to the extension of the distribution mains.

Maintenance Work

The majority of the work carried out by the Water and Drainage Department comes under the above heading and includes the following :—

(1) *Pumping plant.*—This comprises five reciprocating and five centrifugal pumps, all of which have been examined regularly and kept in good mechanical order. These pumps work on an average of 12 hours a day, and the supply was not once interrupted during the year.

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The standby electricity generating set was used once each week and generates enough energy to run two bore-hole pumps, giving approximately 17,000 gallons per hour.

(2) *Reservoirs and Tanks.*—These comprise 11 steel plate tanks and two masonry reservoirs situated over the distribution system.

(3) *New Bore-hole Pump.*—A new type of bore-hole pump, in which both the electric motor and the pump are lowered into the bore-hole and run submerged was purchased and installed in bore No. 3 at a cost of Rs. 11,925.

The pump has not been entirely satisfactory as sand in the water has caused damage to the pump and motor bearings. It is considered that it proved, however, that the supply of water from the bores can be increased, without affecting the underground storage level. During a continuous test of 22 days, 8,976,000 gallons of water were raised from bore No. 3 without lowering the normal rest level.

(4) *Distribution.*—The water-supply to the Fortress was uninterrupted during the year, and no restriction whatever in the use of water was imposed on the general public.

Owing to the Electricity Department being unable to cope with the great demand for energy between the hours of 6 p.m. and 10 p.m. pumping at Sheikh Othman and Isthmus was restricted during these hours. Owing to the existing storage capacity of the reservoirs, this restriction was applied only to the shipping companies refilling their water boats for supplies to shipping during these four hours. In practice very little inconvenience was caused.

(5) *Storage Capacity.*—The present storage capacity of the Waterworks Department is as follows:—

		Gallons.	*Approximate total hours Domestic supply.* hours.
(i) Sheikh Othman—Civil Supply	...	195,000	27
Sheikh Othman—Supply to R.A.F.	...	37,000	12
(ii) Fortress—Isthmus	...	400,000	64
Fortress—Jebar Ridge	...	129,000	42
Fortress—Crater	...	216,000	36
Fortress—Tawahi	...	96,000	30
Total Storage Capacity		1,073,000	

The total hours supply figures are based on the assumption that in time of emergency the supply to gardens and shipping would be stopped.

(6) *Water Connections.*—The total number of water connections to different premises in Aden is 2,595. The number of new connections made during 1938 was 549 compared with 417 for the previous year.